

**Math 1220 #13.5**  
**Further Practice on Techniques of**  
**Integration**

**EX 1**

$$\int \frac{1}{\sqrt{x} + \sqrt[3]{x}} dx$$

**EX 2**

$$\int \frac{x^2}{(1-9x^2)^{3/2}} dx$$

**EX 3**

$$\int \frac{2x^4 - 2x^3 + 6x^2 - 5x + 1}{x^3 - x^2 + x - 1} dx$$

**EX 4**

$$\int \frac{e^{2x}}{\sqrt[3]{1+e^x}} dx$$

**EX 5**

$$\int \cos(\sqrt{x}) dx$$

**EX 6**

$$\int \frac{\sqrt{4x^2 - 9}}{x} dx$$

**EX 7**

$$\int \frac{\sqrt[3]{x+8}}{x} dx$$